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Phones	(703	) 308-2630		Dater	10/12/2004	
Ret	Proposed claim amendments for U.S. Pat. CC: Appl. Serial No. 09/848,701				Ms. Karen Meier	
					Shimokaji & Associates, P.C.	
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Dear 🗈	kamin	er Koczo, Jr.:				
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Thank y	ou ag	gain for your willingr	ess to discuss this	s matter :	and consider our p	roposals.
Regards	<b>S</b> ,					
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# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Joseph Zelina : Confirmation No.: 7935

Serial No. 09/848,701 : Group Art Unit: 3746

Filed: May 2, 2001 : Examiner: Michael Koczo

For: Partial Premix Dual Circuit Fuel

Injector

# Listing of Claims:

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1-14. (cancelled)

15. (currently amended) A gas turbine engine fuel injection and combustor system, comprising:

an outer casing extending from an upstream end to a downstream end, an internal space of the downstream end defining a combustion chamber;

an annular dome connected to an internal, upstream end of the outer casing;

a radial flow air swirler mounted to <u>a radial air swirling housing</u> an internal surface of the annular dome and to an external surface of a fuel injector body, said swirler providing swirled air to the combustion chamber, said radial air swirling housing connected to said annular dome; and

a fuel injector body mounted to an internal surface of the radial flew air swirler swirling housing, said fuel injector body comprising a main circuit fuel nozzle disposed about an outer periphery of said fuel injector body and concentrically disposed about a plurality of axially oriented air swirlers, said air swirlers located within said fuel injector body and concentrically disposed about a pilot circuit fuel nozzle and between said main circuit fuel nozzle and said pilot

circuit fuel nozzle, said main circuit fuel nozzle in fluid communication with a main circuit burner fuel through a passageway formed within said fuel injector body, said axially oriented air swirlers formed parallel to a combustion centerline formed within said fuel injector body, said pilot circuit fuel nozzle in fluid communication with a pilot circuit burner fuel through said combustion centerline a plurality of axially oriented air swirlers, an axially located pilot circuit fuel nozzle, and a plurality of radially oriented main circuit fuel nozzles; and

wherein the annular dome includes a plurality of circumferentially disposed dome cooling nozzles; and

wherein said fuel injector body incorporates both the pilot circuit and the main circuit fuel nozzles.

# 16. (cancelled)

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17. (previously presented) The gas turbine engine fuel injection and combustor system of claim 15, wherein said fuel injector body for the pilot and main circuit fuel nozzles is cylindrical.

### 18. (cancelled)

- 19. (previously presented) The gas turbine engine fuel injection and combustor system of claim 15, wherein said pilot circuit fuel nozzle is encircled by the plurality of axially oriented air swirlers.
- 20. (currently amended) The gas turbine engine fuel injection and combustor system of claim 15, wherein said main circuit fuel nozzles each discharge fuel at an a compound angle with respect to a radially extending axial axis of each nozzle into a radial swirter passage.

#### 21. (cancelled)

- 22. (previously presented) The gas turbine engine fuel injection and combustor system of claim 15, further comprising a can type combustor.
- 23. (previously presented) The gas turbine engine fuel injection and combustor system of claim 15, further comprising an annular type combustor.
- 24. (previously presented) The gas turbine engine fuel injection and combustor system of claim 15, wherein the system is capable of utilizing aviation fuel.
- 25. (currently amended) A gas turbine engine fuel injection and combustor system, comprising:

an outer casing extending from an upstream end to a downstream end, an internal space of the downstream end defining a combustion chamber;

an annular dome connected to an internal, upstream end of the outer casing;

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a radial flow air swirler mounted to a radial air swirling housing an internal surface of the annular dome and to an external surface of a fuel injector body, said swirler providing swirled air to the combustion chamber, said radial air swirling housing connected to said annular dome; and

a fuel injector body mounted to an internal surface of the radial flew air swirler swirling housing, said fuel injector body comprising a main circuit fuel nozzle disposed about an outer periphery of said fuel injector body and concentrically disposed about a plurality of axially oriented air swirlers, said air swirlers located within said fuel injector body and concentrically disposed about a pilot circuit fuel nozzle and between said main circuit fuel nozzle and said pilot circuit fuel nozzle, said main circuit fuel nozzle in fluid communication with a main circuit burner fuel through a passageway formed within said fuel injector body, said axially oriented air swirlers formed parallel to a combustion centerline formed within said fuel injector body, and said pilot circuit fuel nozzle in fluid communication with a pilot circuit burner fuel through said combustion centerline

a plurality of axially oriented air swirlers, an axially located pilot circuit fuel nezzle; and a plurality of radially oriented main circuit fuel nezzles;

# 26. (cancelled)

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27. (previously presented) The gas turbine engine fuel injection and combustor system of claim 25, wherein said fuel injector body for the pilot and main circuit fuel nozzles is cylindrical.

### 28. (cancelled)

- 29. (previously presented) The gas turbine engine fuel injection and combustor system of claim 25, wherein said pilot circuit fuel nozzle is encircled by the plurality of axially oriented air swirlers.
- 30. (currently amended) The gas turbine engine fuel injection and combustor system of claim 25, wherein said main circuit fuel nozzles each discharge fuel at an a compound angle with respect to a radially extending axial axis of each nozzle into a radial swirler passage.
- 31. (previously presented) The gas turbine engine fuel injection and combustor system of claim 25, further comprising a can type combustor.
- 32. (previously presented) The gas turbine engine fuel injection and combustor system of claim 25, further comprising an annular type combustor.
- 33. (previously presented) The gas turbine engine fuel injection and combustor system of claim 25, wherein the system is capable of utilizing aviation fuel.

34-42. (cancelled)